

Travelute  
Serial No. 10/813,893  
Filed: March 31, 2004  
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Remarks

This is in response to the Official Action mailed December 6, 2005. Applicants note with appreciation the Examiner's careful review of the pending application. Applicants' responsive arguments are set forth in the order that the rejections are presented in the Official Action.

The arguments herein are presented in terms of the independent claims. Because in most cases the treatment of the independent claims defines the issues under consideration, responding in terms of the independent claims likewise focuses the argument in a useful and efficient manner.

Paragraph 5

Paragraph 5 rejects claims 55-57, 59 and 60 as anticipated by, our obvious over, U.S. Patent No. 5,407,625 to Travelute.

First, any rejection under § 102 requires that all of the elements in the claim be present in the single anticipating reference. If claimed elements are absent from the cited reference, the cited reference simply cannot be applied under any part of § 102. In such cases, § 102 merely defines the reference as prior art rather than as an anticipating reference.

Accordingly, because the Travelute '625 patent neither discloses nor suggests the surface effects nor the respective orders of magnitudes of the sizes of those surface effects, the '625 patent cannot fairly be applied against Claim 55 under § 102. Therefore, Applicants submit that this grounds of rejection must be removed.

Next, the '625 patent must be evaluated to determine whether it suggests the surface effects recited in Claim 55 to the person of ordinary skill in the art. When evaluated in this light, the Travelute '625 patent fails to describe any surface effects whatsoever. Any patent that lacks any description of surface effects correspondingly lacks the information that would encourage the skilled person to develop the longitudinal surface effects recited in Claim 55. Accordingly, the '625 patent should be removed as a § 103 reference as against Claim 55.

Paragraph 6

Claims 48-54 and 58 have been rejected under §103 on the basis of a combination of the Travelute '625 patent and Nichols, No. 6,485,829.

First, with respect to Claim 58, because Travelute fails to disclose or suggest any surface effects whatsoever, it cannot support a combination of any type.

Second, claims 49-54 all depend from independent Claim 48 which recites the polyester copolymer, the hollow core, and the foamed sheath. Neither Travelute nor Nichols suggests using foam for the sheath of a hollow filament. Accordingly, they cannot suggest the foamed sheath to the person of ordinary skill in this art. Therefore, the combination cannot logically suggest the recitations of Claim 48 or of dependent claims 49-54

Paragraph 7

Paragraph 7 rejects Claim 1 and certain of the dependent claims as obvious with respect to Siggel (No. 4,164,603) combined with Nichols '829. First, Siggel fails to suggest that the nucleating agent particle size should be "submicron" as recited in Claim 1. In fact, Siggel is silent with respect to nucleating agent particle size. As known to those of skill in this art, all of the items Siggel lists (e.g. Column 2 lines 59-60) are widely available in a range of sizes, including greater-than-micron sizes. Having failed to recognize the problem of larger sizes, Siggel cannot logically suggest the solution.

Second, the Office Action takes the position that Claim 1's recitation of "an amount less than 10 percent by weight," can include zero percent (0%) of the nucleating agent. Applicant respectfully submits that this misreads Claim 1. Claim 1 positively recites the presence of submicron-sized particles and then immediately recites the upper limit.

Claim 1 has been amended to recite that the copolymer has (rather than "for providing") a greater elasticity than a corresponding monomer. As described in the specification (e.g., Paragraphs 0067, 0070 and 0104), the greater elasticity of the copolymer

affects the shear and viscosity properties, which in turn helps produce cells of the recited sizes and quality.

The Office Action takes the position that because Nichols '829 describes favorable wicking properties of a glycol copolymer, the person of skill in the art would adopt the copolymer for a foam filament on such basis.

Applicant respectfully submits that this is a hindsight application of the Nichols reference against Claim 1. Nothing in Siggel or Nichols discloses or suggests that increasing the elasticity of a polymer (regardless of its composition) provides an improvement in the formation of cells and thus in the formation of a foam polymer. Absent any such suggestion, the combination lacks any logical basis as against Claim 1.

Paragraph 10

Paragraph 10 rejects pending claims 1 and 40 on the basis of a combination of Li (No. 4,626,390) and Nichols '829. This combination suffers from some of the same weaknesses as the Siggel-Nichols combination in that, with respect to Claim 1, neither Li nor Nichols discloses or suggests that the nucleating agent must be present in amounts less than 10 percent by weight. Furthermore, although Nichols discloses the use and advantages of certain polyester copolymers, nothing in Nichols or Li suggests that increasing the elasticity of the copolymer will enhance the foam-making process and the resulting foam.

With respect to Claim 40, Li does not (in contrast to the argument in the Office Action) use the same extrusion technique as does the claimed invention. As a result, Li cannot be assumed to have disclosed the equivalent filament. In particular, Claim 40 recites a filament with different degrees of orientation along at least two adjacent longitudinal portions of the filament. This different orientation is obtained by preferentially (i.e. in a favored direction) quenching the filament immediately following extrusion from the spinneret. Although Li mentions conventional quenching, Li fails to recognize or suggest that different

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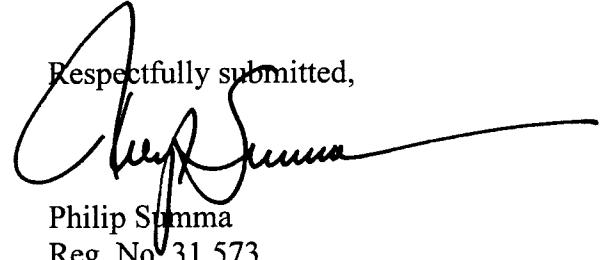
degrees of orientation can be produced in the filament by quenching from a preferred direction.

Paragraph 13 (Double Patenting)

Applicants respectfully suggest that the double patenting rejection be withdrawn as either premature or unnecessary. First, Serial No. 11/091,413 is a continuation-in-part of the present application (Paragraph 0001 of 11/091,413). Second, by virtue of filing date and other considerations (e.g. § 103(c)) No. 11/091,413 is not prior art as against the present invention. Third, Applicants' arguments herein demonstrate that combinations that include the Nichols '829 patent do not render the pending claims obvious.

Applicants accordingly submit that all of the issues having been addressed, the pending claims are in condition for immediate allowance and the same is respectfully requested.

Respectfully submitted,



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